

PROGRAM LISTINGS this issue are done (for the most part) on my new printer. The originators sent a tape which made it easy to load into the machine and try out, and then a *PRINT;LIST and zing, zing goes the printer. Last month I took my Bally and a portable TV over to the COMPRINT plant in Mountain View, and talked to one of their engineers, Larry Kelly. We soldered up a couple of wires and got them working right off the bat. We tried a couple of LIST programs and I went off to order my own unit. Here are some of the details:

Page 20 of Vol.1 has the schematic of the cassette interface, but it leaves out a bit of pertinent data which was included in the Hacker's Manual. The modified picture is shown in Fig 1 below. The missing piece of the page 20 diagram is the dotted line from pin 15 of IC 7 over to pin 6 of IC 5. There is no connection at the output pin 7 of IC 5 as constructed. This is the printer connection point.

Fig.2 is a part of the pc board shown in the Hacker's Manual, and shows exactly where the tap should be made to get the data line (pin 7) and the ground line (pin 8). The other end of the wires I soldered here went to the COMPRINT connector, to pins 3 and 7 respectively. The connector they use is an RS 232 type with 25 pins (looks like the hand controller connector, only bigger). I did have an intermediate connector using a miniature jack per the Manual suggestion.

To get the proper output from the Bally, the command *PRINT must be used instead of :PRINT as when going to tape.

Fig. 1:-

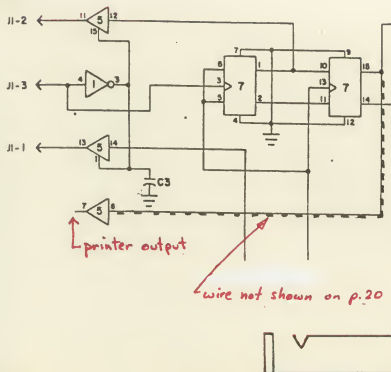
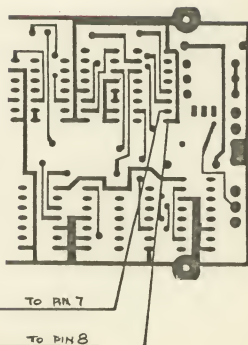


Fig. 2:-



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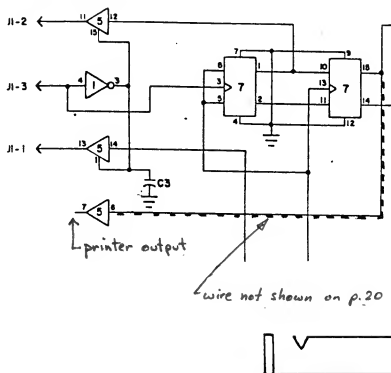
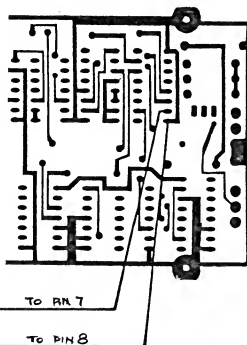


Fig. 2:-



arcadian

CHECKERS II is an upgraded version of the previous game by John Collins and I think we have it bug-free this time. It includes some enhancements suggested by subscribers in comments to version I, and it operates somewhat faster than before. Bill Templeton checked it out for me, and suggested the following color addition-
FC=107;&(9)=17;&(0)=7;&(1)=7;&(2)=8;&(3)=8

BIORYTHM has the following preface: After inputting the requested dates, the machine will do a few internal operations and finally three numbers will appear on the screen. The older you are, the longer it takes. These numbers are factors for the desired year. You will be asked for a specific month and day - input as before. After a brief time a graph will be displayed. The vertical line corresponds to the day requested, to index the three cycles. After a long count, the computer will tell you how many days you have lived.

ATTACK This is a game of CHASE. The object is to maneuver yourself into a position where all five attackers destroy themselves by smashing into walls in the process of chasing you. Number of walls must be entered at the start of the game. Joystick #1 and Trigger #1 are the only controls used. The joystick changes your position to the corresponding direction. The trigger is used to start the game and also to hold your current position.

MANUAL ASSEMBLER is an interesting program which I do not understand. It pokes in characters and then prints them out. Start pumping in the following sequence of numbers when the program starts asking "16385= " - 255 53 0 24 76 8 64 these will call subroutine 52 and load up the initial conditions, then when 16392 shows up, the program is asking for the characters to be printed. If you insert the following, you will see our old familiar ARCADIAN - 65 82 67 65 68 73 65 78 0 0 0. This is something for the more advanced subscriber to play with...

```
1 .MANUAL ASSEMBLER
2 . R.BRADDAM
3 .
4 .
5 .
10 CLEAR
20 @(0)=243;B=1
30 PRINT #1,16384+B,"=",;INPUT ""@(B)
40 IF @(B)<256 B=B+1;GOTO 30
50 @(B)=118
60 C=B
70 INPUT "START RECORDER, WAIT 3 OR 4 SECONDS, THEN ENTER ANY NUMBER AND PRESS
GO."W
80 :PRINT
90 FOR B=0TO C
100 TV= @(B);FOR D=1TO 8;NEXT D
110 NEXT B
120 FOR B=C TO 128;TV=118;FOR D=1TO 8;NEXT D;NEXT B
130 :RETURN ;STOP
```

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110 NEXT B
120 FOR B=C TO 128;TV=118;FOR D=1TO 8;NEXT D;NEXT B
130 :RETURN ;STOP

```

MY MEMORY ADDITION board is going into the design phase, with delivery scheduled for early next year, but knowing how things go, probably middle of next year. To keep my cost down, I won't get all the memory slots filled in. It'll accept my Jameco 610 keyboard, and other peripherals. Subscribers who have indicated interest in this board will find an added sheet with some details. You will receive this sheet if your address label has an A0 printed on it or a blue dot.

S-100 BUS INTERFACE CARD A project is being considered that would allow us to tie the Bally to all the S-100-compatible peripherals. This card would have the Bally Bus on one edge and an S-100 Bus on another edge. The card would fit into an S-100 motherboard, and would have dual input capability, so that the Bally could be either master or slave. At the moment we are developing specifications.

EPROM BURNER is another scheme being worked on. It is currently being planned to be located on the S-100 board. With this device, we will have the capability to take a program and install it into a ROM, and then the ROM can be plugged into the front cartridge slot after mounting it on a suitable pc board.

WHAT DO YOU WANT? I would like to make a serious survey of the subscribers to find out what is needed/wanted and the demand for those things to see if any efforts would be warranted. I would like to receive a list of 'things' plus an indication from you if you are able to help in writing the specifications for those 'things' we come up with. 'Things' might be ... computer/computer interaction via telephone lines...or...radio code transmitting and receiving ... or...a self diagnostic cartridge...or... a method to generate and store characters...or...???

RF CABLE PATCH BOX is offered by Video Cassette Rentals of 1841 E. Chapman, Orange CA 92667. This box is used to connect RF cables, such as antennas or TV recorders or games together. Those of you with multiple units might find these handy to cut the tangle of cables. They offer subscribers a 10% discount.

BALLY will be in Las Vegas during the Winter CES in January. They will have a suite at the Hilton and expect to show proposed game cartridges to their distributors/dealers. To be shown are Checkers, Dogpatch, Biorythms (with Perpetual Calendar), and Chess. Industry-wide shortage of memory chips has been holding up deliveries of current games and will have some effect on the new ones. The scheduled decision on the production of the Add-On remains at late January.

RESEQUENCING ERROR has been pointed out... in part of line 20060, it should read FOR A=-24574 TO A+1796-SZ

MANUAL HOLDERS might be interested to note that pages 135 thru 143 ("Electrical Specifications for Midway Custom Chips") originated at American Microsystems, Inc., makers of the custom chips.

```

4 .
5 : RETURN
7 PRINT "C)CHECKERS JOHN COLLINS":GOTO 3000
8 R=U;Q=0:-1:X=11;U=89;T=-1;V=8:A=12
9 NEXT Q:NEXT X
10 NEXT U:NEXT X
120 GOTO 1200
IN
20 GOSUB 2000:PRINT "KEY RUN ":STOP
50 CX=-71:FOR U=ATO 89:IF @ (U) < 46GOTO 55:A=U;U=89
55 NEXT U:FOR V=1TO 8:PRINT #1,V,:FOR U=ATO 89:IF @ (U) < 46GOTO 10
60 FOR X=9TO 11STEP 2:FOR Q=1TO -1STEP -2:IF @ (U)=40=-1
70 B=ObX:S=U+B:IF @ (S)=0GOTO 9
75 IF V>2IF @ (S)*3GOTO 9
80 C=B+B:F=Ob2B:Z=U+100:GOTO Z
100 IF @ (U+C)*3GOTO 9
120 IF @ (S)>2GOTO 9
220 IF U=1 S=U+C:GOTO 8
230 S=U-B:IF @ (S)*3GOTO 9
235 IF @ (U-C)*F=2GOTO 260
240 IF @ (U-F)>3 U=U-F:GOTO 8
250 IF @ (U-C)>3 U=U-C:GOTO 8
260 S=U-B+H:IF @ (S)=3GOTO 8
290 GOTO 9
300 IF @ (S-F)*15GOTO 9
310 IF @ (S)=3GOTO 8
320 S=-5-Zb(X-10):IF @ (S)=3GOTO 8
330 GOTO 9
400 IF @ (U+C)=0IF @ (U)=4GOTO 8
410 GOTO 9
500 L=1
600 L=1:IF @ (U+C)<3GOTO 9
610 IF @ (U+F)<3IF @ (U+C-F)=3GOTO 9
620 IF @ (U+F)=3IF @ (U+C-F)=16GOTO 9
625 IF V=5GOTO 700
630 L=L+1:D=@ (U+LbB):IF (D=0)+(D>3)GOTO 9
650 IF L#2IF D<3GOTO 8
660 GOTO 630
700 IF @ (U)=5GOTO 9
800 GOTO 8
1000 CX=-71:CY=40:PRINT "FROM":GOSUB 1700:R=I:PRINT " TO":GOSUB 1700:S=I
IF @ (R)>2)+( @ (R)=0)+( @ (S)*3)GOTO 1000
IF @ (R)*11IF R>5GOTO 1000
1200 IF ((S-R)b(S-R))<122GOTO 1600
1210 IF T>0IF @ ((S+R)*2)<45GOTO 1000
1220 J=T: @ (S)= @ (R): @ ((S+R)*2)=3: @ (R)=3
1400 FOR X=9TO 11STEP 2:G=S+SbX:IF @ (G)=3+T)+( @ (G)=3+T+T)GOTO 1400
J=1: @ (S)= @ (R): @ ((S+R)*2)=3: @ (R)=3
↑
b means x (multiply)
c means + (divide)

```

```

4 .
6 RETURN
7 PRINT "(C)CHECKERS_JOHN COLLINS";GOTO 3000
8 R-U=0;-1;X=11;U=89;T=-1;U=8;A=12
9 NEXT Q:NEXT X
10 NEXT U:NEXT U;IF T<0GOTO 1200
11 IN
20 GOSUB 2000;PRINT "KEY#RUN ";STOP
50 CX=-71;FOR U=ATO 89;IF @ (U)<4GOTO 55;A=U;U=89
55 NEXT U;FOR U=1TO 8;PRINT #1,U;IF @ (U)<4GOTO 10
60 FOR X=9TO 11STEP 2;FOR Q=1TO -1STEP -2;IF @ (U)=4Q=-1
70 B=0X;S=U+H;IF @ (S)=0GOTO 9
75 IF U>21F @ (S)*3GOTO 9
80 C=B+H;F=0;20;Z=U+100;GOTO Z
100 IF @ (U+C)*3GOTO 9
200 IF @ (S)*2GOTO 9
220 IF U=1 S=U+H;GOTO 8
230 S=U-B;IF @ (S)*3GOTO 9
235 IF @ (U-C)+F=2GOTO 280
240 IF @ (U-F)*3 U=U-F;GOTO 8
250 IF @ (U-C)*3 U=U-C;GOTO 8
250 S=U-B+F;IF @ (S)=3GOTO 8
290 GOTO 9
300 IF @ (S-F)*1GOTO 9
310 IF @ (S)=3GOTO 8
320 S=5-2*(X-10);IF @ (S)=3GOTO 8
330 GOTO 9
400 IF @ (U+C)=0IF @ (U)=4GOTO 8
410 GOTO 9
500 L=1
600 L=1;IF @ (U+C)<3GOTO 9
610 IF @ (U+H)<3IF @ (U+C-F)=3GOTO 9
620 IF @ (U+F)=3IF @ (U+C-F)=1GOTO 9
625 IF U=5GOTO 700
630 L=L+1;D=@ (U+L*B);IF (D=0)+(D>3)GOTO 9
650 IF L#21F D<3GOTO 8
660 GOTO 630
700 IF @ (U)=5GOTO 9
800 GOTO 8
1000 CX=-71;CY=40;PRINT "FROM";GOSUB 1700;R=1;PRINT " TO";GOSUB 1700;S=1
1010 IF @ (R)>2;+@ (R)=0;+@ (S)*3GOTO 1000
1040 IF @ (R)#1IF R>SGOTO 1000
1200 IF ((S-R)*b(S-R))<122GOTO 1000
1210 IF T#0IF @ ((S+R)*c2)<4GOTO 1000
1220 J=T;@ (S)=@ (R);@ ((S+R)*c2)=3;@ (R)=3
1400 FOR X=9TO 11STEP 2;G=S+J*bX;IF @ ((G)=3+T)+@ ((G)=3+T+T)GOTO 1450
1430 GOTO 1500
1450 G=S+2*bJ*bX;IF @ (G)*3GOTO 1500
1470 R=S;S=G;X=11;NEXT X;GOTO 1220
1500 NEXT X;IF (ABS(@ (S)-3))-21F J=T J=-T;GOTO 1400
1510 GOSUB 2000;GOTO 1610
1600 @ (S)=@ (R);@ (R)=3;I=R;GOSUB 2020;I=S;GOSUB 2020
1610 IF T#0IF S#0@ (S)=1
1620 IF T#0IF S<20@ (S)=5
1630 IF T#0GOTO 50
1640 T=1;GOTO 1000
1700 INPUT " ROM*M";INPUT " COL*N";I=M+10;N+1;RETURN
2000 CLEAR :FOR I=1TO 8;CY=40;CX=-6+10;PRINT #1,I,:NEXT I;FOR I=1TO 8;CX=-5
2010 CY=-49+10;PRINT #1,I,:NEXT I;FOR I=12TO 89;IF @ (I)*0GOSUB 2020
2015 NEXT I;RETURN
2020 M=-17+(1-(1010)b10)b10
2030 N=-49+(1010)b10
2040 BOX M,N,10,10,1;IF @ (I)*3 J=ABS(@ (I)-3)*3;BOX M,N,8,J,3
2050 IF @ (I)>30X M,N,6,J-2,3
2100 RETURN
3000 FOR I=1TO 100;@ (I)=0;NEXT I;FOR I=12TO 18STEP 2
3010 @ (I)=2;@ (I+1)=2;@ (I+20)=2;@ (I+31)=3;@ (I+40)=3
3020 @ (I+51)=4;@ (I+60)=4;@ (I+71)=4;NEXT I;A=67
3030 GOSUB 2000;GOTO 50

```

b means * (multiply)
 c means / (divide)

```

2 .ATTACK
3 .BY CARL MORIMOTO
4 .
10 :RETURN
100 CLEAR :NT=0;BC=250;FC=7
110 P=20;Q=10;CX=P-21;CY=0
120 Z=950
130 GOSUB 1250
140 NT=4:PRINT " ATTACK":NT=0
150 CX=-60;CY=-32:INPUT " # WALLS (1-20)"U
160 U=U+6;IF U>260=26
165 GOTO 200
170 A=RND (100)
180 IF TR(1)=66GOTO 170
200 @ (1)=RND (100)
205 FOR A=2TO U
210 L=RND (100)
215 N=A-1
220 FOR B=1TO N:NT=2;MU=L+B:NT=0
230 IF L=@(B)GOTO 210
240 NEXT B
250 @(A)=L:NEXT A
255 P=RND (60)-30;Q=-10
260 CLEAR :BC=7;FC=250;GOSUB 1250:P=P-20;Q=Q-23
270 FOR A=7TO U
280 GOSUB 1105;GOSUB 1120
290 NEXT A
300 FOR A=2TO 6
310 GOSUB 1105;GOSUB 1135
320 NEXT A
350 X=@(1);Y=(X-1)*10;X=X-Y*10
360 GOSUB 1150
400 CX=-60;CY=36:PRINT "YOUR MOVE"
410 IF TR(1)=66GOTO 515
420 K=JX(1);J=JY(1)
430 IF K=0IF J=66GOTO 410
500 GOSUB 1100;BOX H,I,5,1
510 X=X+K;Y=Y+J
515 GOSUB 1150
520 IF X<1GOTO Z
530 IF Y<1GOTO Z
540 IF X<0GOTO Z
550 IF Y>9GOTO Z
560 C=Y*10+X
570 FOR A=2TO U
580 IF C=@(A)GOTO Z
590 NEXT A
600 FOR A=2TO 6
610 L=@(A);IF L<1GOTO 770
620 T=(L-1)*10;S=L-T*10;U=X-S;W=Y-T
622 FOR B=2TO 6
624 IF A=BGOTO 628
626 IF L=@(B)GOTO 650
628 NEXT B
630 GOSUB 1110;BOX H,I,5,1
650 IF U=0GOTO 680
660 IF U<0S=-1
670 IF U>0S=+1
680 IF W=0GOTO 710
690 IF W<0T=-1
700 IF W>0T=+1
710 GOSUB 1130
720 D=T*10+S;@(A)=D;IF D<0GOTO 980
730 FOR B=7TO U
740 IF D=@(B)GOTO 760
750 @(A)=-1;GOSUB 1190;GOTO 770
760 NEXT B
770 NEXT A
780 FOR A=2TO 5:L=@(A);IF L<1GOTO 820
790 FOR B=A+1TO 6;IF L=@(B)@(A)=-1
810 NEXT B
820 NEXT A
830 FOR A=2TO 6
840 IF @(A)>0GOTO 400
850 NEXT A
900 FOR A=1TO 7;GOSUB 1150;NEXT A
910 FC=7;BC=250
920 PRINT "ALL ATTACKERS DESTROYED"
930 GOTO 170
950 FC=118;BC=1
960 PRINT "YOU ZAPPED YOURSELF"
970 GOTO 1000
980 FC=82
1000 NT=2;FOR A=1TO 15;X=FC;FC=BC;BC=X

```

b means x
(multiply)

c means ÷
(divide)

LINES 1010-1250
CONTINUED ON
P. SIXTEEN

```

2 .ATTACK
5 .BY CARL MORIMOTO
4
10 : RETURN
100 CLEAR : NT=0; BC=250; FC=7
110 P=20; Q=10; CX=P-21; CY=Q
120 Z=950
130 GOSUB 1250
140 NT=4; PRINT " ATTACK"; NT=0
150 CX=-60; CY=-32; INPUT " # WALLS (1-20) " U
160 U=U+6; IF U>250=26
165 GOTO 200
170 A=RND (100)
180 IF TR(1)=0GOTO 170
200 @ (1)=RND (100)
205 FOR A=2TO U
210 L=RND (100)
215 N=A-1
220 FOR B=1TO N: NT=2; MU=L+B; NT=0
230 IF L=@(B)GOTO 210
240 NEXT B
250 @ (A)=L; NEXT A
255 P=RND (50)-30; Q=-10
260 CLEAR : BC=7; FC=250; GOSUB 1250; P=P-28; Q=Q-23
270 FOR A=7TO U
280 GOSUB 1105; GOSUB 1120
290 NEXT A
300 FOR A=2TO 6
310 GOSUB 1105; GOSUB 1135
320 NEXT A
350 X=@ (1); Y=(X-1)*10; X=X-Y*10
360 GOSUB 1150
400 CX=-60; CY=-36; PRINT "YOUR MOVE"
410 IF TR(1)=0GOTO 515
420 K=JX(1); J=JY(1)
430 IF K=0IF J=0GOTO 410
500 GOSUB 1100; BOX H,1,5,5,1
510 X=X+K; Y=Y+J
515 GOSUB 1150
520 IF X<1GOTO Z
530 IF X>10GOTO Z
540 IF Y<0GOTO Z
550 IF Y>9GOTO Z

```

```

560 C=Y*10+X
570 FOR A=2TO U
580 IF C=@(A)GOTO Z
590 NEXT A
600 FOR A=2TO 6
610 L=@(A); IF L<1GOTO 770
620 T=(L-1)*10; S=L-T*10; U=X-S; W=Y-T
622 FOR B=2TO 6
624 IF A=BGOTO 628
626 IF L=@(B)GOTO 650
628 NEXT B
630 GOSUB 1110; BOX H,1,5,5,1
650 IF U=0GOTO 680
660 IF U<0S=-1
670 IF U>0S=S+1
680 IF W=0GOTO 710
690 IF W<0T=-1
700 IF W>0T=T+1
710 GOSUB 1130
720 D=T*10+S; @ (A)=D; IF D=CGOTO 980
730 FOR B=7TO U
740 IF D=@(B)GOTO 760
750 @ (A)=-1; GOSUB 1190; GOTO 770
760 NEXT B
770 NEXT A
780 FOR A=2TO 5: L=@(A); IF L<1GOTO 820
790 FOR B=A+1TO 6; IF L=@(B)@ (A)=-1
810 NEXT B
820 NEXT A
830 FOR A=2TO 6
840 IF @ (A)>0GOTO 400
850 NEXT A
900 FOR A=1TO 7: GOSUB 1150; NEXT A
910 FC=7; BC=250
920 PRINT "ALL ATTACKERS DESTROYED"
930 GOTO 170
950 FC=118; BC=1
960 PRINT "YOU ZAPPED YOURSELF"
970 GOTO 1000
980 FC=82
990 PRINT "YOU ARE ZAPPED"
1000 NT=2; FOR A=1TO 15; X=X-FC; FC=BC; BC=X

```

b means x
(multiply)

c means ÷
(divide)

LINES 1010-1250
CONTINUED ON
P. SIXTEEN

b means x (multiply)
c means ÷ (divide)

```

3 . HANGMAN
5 . BY CARL MORIMOTO
6 .
10 : RETURN
100 NT=0: CLEAR : &(10)=174: FC=0
110 Z=-62: M=-15: L=-19
120 S=32: J=500
130 T=0: E=0: U=0
200 CX=20: CY=L: PRINT "HANGMAN"
210 CX=-77: CY=5: NT=2: PRINT "ENTER": PRINT "WORD": PRINT "FROM": PRINT "KEYPAD": CX=
-77: CY=-31: PRINT "→"
220 CX=-62: CY=-31: A=1
230 IF A=0 A=1
240 IF A=22: GOTO 310
250 B=KP: MU=B: IF B=13: GOTO 310
260 IF B=31: GOTO 280
270 IF A1: U=B: T=U: S: TU=B
275 A=A-1: GOTO 230
280 IF B=64: IF B=91: TU=45: GOTO 300
290 B=S: TU=S
300 @A=B: A=A+1: GOTO 230
310 C=A-1: NT=0
320 BOX =63, -7, 35, 2: BOX =72, -31, 5, 2
330 BC=65+Cb8
340 BOX 0, -25, 131, 1, 1
350 BOX =39, 5, 2, 60, 1
360 BOX =26, 34, 24, 1, 1
370 BOX M, L, 21, 11, 1: BOX M, L, 19, 10, 2
380 &(10)=160: CX=-62: CY=-40
390 NT=10: FOR A=1 TO C: TU=@A: NEXT A
400 NT=0
500 N=KN(1): G=77
510 IF N=65: N=65
520 IF N=90: N=90
530 IF N=17: CX=Z: CY=40: TU=N: T=N: TU=95
540 IF TR(1)=0: GOTO J
545 CX=CX-6: NT=10: TU=42: NT=0
550 IF E=0: GOTO 590
560 FOR A=1 TO E
570 IF N=@(A+22): GOTO J
580 NEXT A
590 @C+E+23=N: E=E+1
600 R=0: D=0
610 FOR A=1 TO C
620 IF @A)=S R=R+1
630 IF @A)=NGOTO 670
640 CX=Z: CY=40: TU=S: TU=S
650 CY=-31: CX=-62: (A-1)B6
660 NT=20: TU=NT=0: @A)=S: D=1: R=R+1
670 NEXT A
680 IF D=0: GOTO 800
690 IF R<CGOTO J
700 CX=20: CY=20: PRINT "SAVED"
710 NT=5: FOR A=1 TO 10: BC=252: MU=52: NEXT A: NT=0
750 IF TR(1)=0: GOTO 750
760 GOTO 100
800 Z=Z+6: NT=20: MU=24: NT=50: MU=10: NT=0
810 U=U+1: GOTO U=50+950
1000 G=L: H=-21: GOTO 1050
1050 G=-11: H=-9
1060 BOX 6, 2, 5, 4, 1: BOX 6, -5, 3, 19, 1: BOX H, -12, 3, 2, 1: GOTO J
1100 BOX M, 6, 9, 11, 1: BOX M, 14, 3, 4, 1: GOTO J
1150 BOX M, 23, 9, 3, 1: BOX M, 21, 15, 2, 1: BOX M, 17, 11, 6, 1: BOX M, 17, 15, 3, 1
1160 BOX M, 18, 7, 3, 2: BOX M, 18, 1, 3, 1: BOX M, 15, 5, 5, 1: GOTO J
1200 G=-7: GOTO 1260
1250 G=-22
1260 BOX 6, 9, 6, 3, 1: GOTO J
1300 G=-5: H=-7: GOTO 1360
1350 G=-24: H=-23
1360 BOX 6, 5, 4, 5, 1: BOX 6, 1, 2, 4, 1: BOX H, 0, 1, 3, 1: GOTO J
1400 BOX M, 30, 1, 10, 1
1410 NT=30: BOX M, 19, 5, 2, 1: BOX =16, 17, 2, 1, 2: BOX =13, 17, 2, 1, 2: NT=0: GOTO J
1450 BOX M, L, 21, 11, 2: BC=67
1600 A=48: B=49: C=50: E=45: F=43
1610 &(10)=174: NT=10

```


1 .BIORYTHMS - - M.R. ANGLISS 1579

```

2 :RETURN
3 :RETURN
4 :RETURN
5 :RETURN
8 CLEAR :PRINT :PRINT :PRINT
10 FC=7:NT=0
11 PRINT " - "
12 PRINT " O R "
13 PRINT " I H "
14 PRINT " B Y S "
15 PRINT " T M "
16 PRINT " H "
20 PRINT :FC=1
25 NT=3
30 NT=3
40 INPUT "MONTH*M
45 CLEAR
50 INPUT "DAY*D
55 CLEAR
60 INPUT "YEAR 19??*Y
65 CLEAR
70 PRINT "BIO-RHYTHM FOR THE"
80 INPUT "YEAR 19??*C
81 CLEAR
82 PRINT :PRINT :PRINT
85 PRINT "STAND BY FOR YOUR FACTORS TO BE COMPUTED"
90 A=(C-Y)-1
95 GOTO 380
100 A=Ab365
101 GOSUB Mb10+20
102 A=A+K
103 A=A+L
110 X=A+3;Y=A+3;Z=A+3
120 IF X<236GOTO 150
130 X=X-23
140 GOTO 120
150 PRINT "PHYSICAL",X
160 IF Y<26GOTO 190
170 Y=Y-26
180 GOTO 160

```

```

190 PRINT "EMOTIONAL",Y
200 IF Z<36GOTO 230
210 Z=Z-33
220 GOTO 200
230 PRINT "MENTAL",Z
240 GOTO 400
260 K=365-D:RETURN
270 K=334-D:RETURN
280 K=304-D:RETURN
290 K=273-D:RETURN
300 K=243-D:RETURN
310 K=212-D:RETURN
320 K=181-D:RETURN
330 K=151-D:RETURN
340 K=120-D:RETURN
350 K=90-D:RETURN
360 K=59-D:RETURN
370 K=31-D:RETURN
380 L=Ac4
390 GOTO 100
400 PRINT :PRINT
410 PRINT "FOR WHAT DATE DO YOU WISH A BIO-RHYTHM?"
420 PRINT
450 INPUT "MONTH*M
460 INPUT "DAY*D
470 GOSUB Mb10+490
480 GOTO 620
500 M=0:RETURN
510 M=31:RETURN
520 M=59:RETURN
530 M=90:RETURN
540 M=120:RETURN
550 M=151:RETURN
560 M=181:RETURN
570 M=212:RETURN
580 M=243:RETURN
590 M=273:RETURN
600 M=304:RETURN
610 M=334:RETURN
620 U=M+D

```

b means \times
(multiply)

c means \div
(divide)

1 .BIORYTHMS - - M.R. ANGLISS 1979

```

2 :RETURN
3 :RETURN
4 :RETURN
5 :RETURN
8 CLEAR :PRINT :PRINT :PRINT
10 FC=7:NT=0
11 PRINT " - "
12 PRINT " O R "
13 PRINT " I H "
14 PRINT " B Y S "
15 PRINT " T M "
16 PRINT " H "
20 PRINT :FC=1
25 NT=3
30 NT=3
40 INPUT "MONTH*M"
45 CLEAR
50 INPUT "DAY*D"
55 CLEAR
60 INPUT "YEAR 19??*Y"
65 CLEAR
70 PRINT "BIO-RHYTHM FOR THE"
80 INPUT "YEAR 19??*C"
81 CLEAR
82 PRINT :PRINT :PRINT
85 PRINT "STAND BY FOR YOUR FACTORS TO BE COMPUTED"
90 A=(C-Y)-1
95 GOTO 380
100 A=A*365
101 GOSUB Mb10+20
102 A=A*H
103 A=A*H
110 X=A*3:Y=A*3:Z=A*3
120 IF X<236GOTO 150
130 X=X-23
140 GOTO 120
150 PRINT "PHYSICAL",X
160 IF Y<28GOTO 190
170 Y=Y-28
180 GOTO 150
190 PRINT "EMOTIONAL",Y
200 IF Z<336GOTO 230
210 Z=Z-33
220 GOTO 200
230 PRINT "MENTAL",Z
240 GOTO 400
250 K=365-D:RETURN
270 K=334-D:RETURN
280 K=304-D:RETURN
290 K=273-D:RETURN
300 K=243-D:RETURN
310 K=212-D:RETURN
320 K=181-D:RETURN
330 K=151-D:RETURN
340 K=120-D:RETURN
350 K=90-D:RETURN
360 K=59-D:RETURN
370 K=31-D:RETURN
380 L=A*4
390 GOTO 100
400 PRINT :PRINT
410 PRINT "FOR WHAT DATE DO YOU WISH A BIO-RHYTHM?"
420 PRINT
450 INPUT "MONTH*M"
460 INPUT "DAY*D"
470 GOSUB Mb10+490
480 GOTO 520
500 W=0:RETURN
510 W=31:RETURN
520 W=59:RETURN
530 W=90:RETURN
540 W=120:RETURN
550 W=151:RETURN
560 W=181:RETURN
570 W=212:RETURN
580 W=243:RETURN
590 W=273:RETURN
600 W=304:RETURN
610 W=334:RETURN
620 U=W+D

```

b means x
(multiply)
c means ÷
(divide)

```

630 R=U+X;S=U+Z;E=U+Y
640 IF R<23GOTO 670
650 R=R-23
660 GOTO 640
670 IF S<28GOTO 700
680 S=S-28
690 GOTO 670
700 IF E<33GOTO 730
710 E=E-33
720 GOTO 700
730 CLEAR :PRINT
735 FC=65;NT=0
740 PRINT "EMOT"
750 PRINT :PRINT :PRINT
760 PRINT "PHYS"
770 PRINT :PRINT
780 PRINT "MENT"
790 BOX 0,0,1,86,3
800 J=27;G=0;S=F=28;S;Q=28
810 H=0;4;1=0;P=0
815 BOX 15,J,125,1,3
820 FOR T=GT0 FSTEP 1
830 IF I<HGOTO 850
840 IF I<(Hb3)GOTO 950
850 P=P+1
860 BOX T,2,Ph2+J,1,1,3
870 I=I+1
880 NEXT T
890 IF J=0GOTO 930
900 IF J=-26GOTO 970
910 J=0;G=0-R;F=21-R;Q=21
920 GOTO 810
930 J=-26;G=0-E;F=33-E;Q=33
940 GOTO 810
950 P=P-1
960 GOTO 860
970 FOR T=1T0 9999STEP 1
980 NEXT T
985 FC=0
990 PRINT "TODAY YOU ARE",A+U
1000 PRINT "DAYS OLD."

```

```

1010 PRINT "DO YOU WISH ANOTHER BIO- RHYTHM FOR THE YEAR OF",C
1020 INPUT "1=YES 0=NO" T
1030 IF T=1GOTO 400
1040 CLEAR :PRINT :PRINT
1050 PRINT "DOES SOMEONE ELSE WANT A BIO-RHYTHM, OR A DIFFERENT YEAR?"
1060 INPUT "1=YES 2=PROGRAM FINISHED" T
1070 IF T=1GOTO 10

```

b means x (multiply)
c means ÷ (divide)

CONTINUATION OF "ATTACK" FROM P. THIRTEEN

```

1010 MU=44;MU=44
1020 NEXT A;NT=0;GOTO 170
1100 H=P+Xb5;I=Q+Yb5;RETURN
1105 S=0(A);T=(S-1)÷10;S=S-Tb10
1110 H=P+Sb5;I=Q+Tb5;RETURN
1120 BOX H,I,1,5,2;NT=2;MU=H;MU-I;NT=0;RETURN
1130 GOSUB 1110
1135 BOX H,I,5,1,2;BOX H,I,1,5,2;BOX H,I,3,3,2
1140 NT=2;MU=53;MU=49;NT=0;RETURN
1150 GOSUB 1100;CX=60;CY=36;PRINT
1160 BOX H,I,3,3,2;BOX H,I,1,1,1
1170 NT=2;FOR E=1T0 S;MU=80;NEXT E
1180 NT=0;RETURN
1190 BOX H,I,5,5,1;BOX H,I,3,3,3;BOX H,I,5,2;BOX H,I,3,3,3
1200 BOX H,I,1,1,3;BOX H,I,3,3,2;BOX H,I,1,1,1,3
1210 NT=2;FOR E=1T0 6;MU=42;NEXT E
1220 NT=0;BOX H,I,5,5,2;RETURN
1250 BOX P,0,62,62,3;BOX P,0,60,60,3;BOX P,0,50,50,3;RETURN

```

```

630 R=U+X;S=U+Z;E=U+Y
640 IF R<23GOTO 670
650 R=R-23
660 GOTO 640
670 IF S<28GOTO 700
680 S=S-28
690 GOTO 670
700 IF E<33GOTO 730
710 E=E-33
720 GOTO 700
730 CLEAR :PRINT
735 FC=65;NT=0
740 PRINT "ENOT"
750 PRINT :PRINT :PRINT
760 PRINT "PHYS"
770 PRINT :PRINT
780 PRINT "MENT"
790 BOX 0,0,1,85,3
800 J=27;Q=0;S;F=28-S;O=28
810 H=Q+4;I=0;P=0
815 BOX 15,J,125,1,3
820 FOR T=GTO FSTEP 1
830 IF I<HGOTO 850
840 IF I<(HB*3)GOTO 950
850 P=P+1
860 BOX Tb2,Pb2+J,1,1,3
870 I=I+1
880 NEXT T
890 IF J=0GOTO 930
900 IF J=26GOTO 970
910 J=0;G=0;R;F=21-R;Q=21
920 GOTO 810
930 J=26;G=0;E;F=33-E;Q=33
940 GOTO 810
950 P=P-1
960 GOTO 860
970 FOR T=1TO 999STEP 1
980 NEXT T
985 FC=0
990 PRINT "TODAY YOU ARE",A+H
1000 PRINT "DAYS OLD"

```

```

1010 PRINT "DO YOU WISH ANOTHER BIO- RHYTHM FOR THE YEAR OF",C
1020 INPUT "1=YES 0=NO" T
1030 IF T=1GOTO 400
1040 CLEAR :PRINT :PRINT
1050 PRINT "DOES SOMEONE ELSE WANT A BIO-RHYTHM, OR A DIFFERENT YEAR?"
1060 INPUT "1=YES 2=PROGRAM FINISHED" T
1070 IF T=1GOTO 10

```

b means x (multiply)
c means ÷ (divide)

CONTINUATION OF "ATTACK" FROM P. THIRTEEN

```

1010 MU=44;MU=44
1020 NEXT A;NT=0;GOTO 170
1100 H=P+XB5;I=Q+Yb5;RETURN
1105 S=(A);T=(S-1)C10;S=S-Tb10
1110 H=P+Sb5;I=Q+Tb5;RETURN
1120 BOX H,I,5,5,2;NT=2;MU=H;MU=I;NT=0;RETURN
1130 GOSUB 1110
1135 BOX H,I,5,1,2;BOX H,I,1,5,2;BOX H,I,3,3,2
1140 NT=2;MU=53;MU=49;NT=0;RETURN
1150 GOSUB 1100;CX=-60;CY=36;PRINT "
1160 BOX H,I,3,3,2;BOX H,I,1,1,1
1170 NT=2;FOR E=1TO 5:MU=80;NEXT E
1180 NT=0;RETURN
1190 BOX H,I,5,5,1;BOX H,I,3,3,3;BOX H,I,5,5,2;BOX H,I,3,3,3
1200 BOX H,I,1,1,3;BOX H,I,3,3,2;BOX H,I,1,1,1
1210 NT=2;FOR E=1TO 6:MU=42;NEXT E
1220 NT=0;BOX H,I,5,5,2;RETURN
1250 BOX P,0,62,62,3;BOX P,0,60,60,3;BOX P,0,50,50,3;RETURN

```

NUMBER MATCH

```

4. NUMBER MATCH
5. BY SCOTT WALPOLE
10 CLEAR:CY=0:NT=0:BC=249:PC=7
20 BOX 0,0,40,40,1
30 BOX 0,0,30,30,2
40 FOR A=1 TO 50
50 B=RND (9)
60 CY=0:CY=0:PRINT #1,B
70 FOR D=5 TO -5 STEP -1
80 G=0
90 IF A(23)=8 G=1:GOTO 200
100 IF A(22)=8 G=2:GOTO 200
110 IF A(21)=8 G=3:GOTO 200
120 IF A(20)=4 G=4:GOTO 200
130 IF A(22)=4 G=5:GOTO 200
140 IF A(21)=4 G=6:GOTO 200
150 IF A(23)=2 G=7:GOTO 200
160 IF A(22)=2 G=8:GOTO 200
170 IF A(21)=2 G=9:GOTO 200
180 IF D=-5 GOTO 220
190 NEXT D
200 IF G#B GOTO 80
220 C=C+D
250 CX=-30:CY=-32:PRINT "SCORE ➡",#2,C
260 IF A=50 GOTO 300
270 NEXT A
300 CLEAR:PRINT "YOUR FINAL SCORE ➡",#2,C

```

INSTRUCTIONS

The object of this game is to match the numbers one at a time as quickly as possible for the highest score. You have a score of 2 seconds to repeat the number displayed within the box using the keypad. If you press the wrong number, try for the same number again before your 2 seconds are up. If you still haven't got the right number and the 2 seconds have run out, 5 points will be deducted from your score and the computer will select a new number. Continue repeating the number until the program stops.

SHORT PROGRAMS

```

4. RANDOM BOX
5. BY SCOTT WALPOLE
10 CLEAR
20 FC=7:BC=0
30 BC=BC+9
40 IF A(21)=16 RUN (Press the ERASE key to clear the screen)
50 X=RND (15)*10
60 Y=RND (8)*10
70 BOX 0,0,X,Y,3
80 GOTO 30

```

MUSIC PROGRAMS

```

4.HELLO, DOLLY!"
5. BY SCOTT WALPOLE
10 CLEAR:NT=13 (or 12)
20 PRINT "350003135600031",
30 PRINT "357x17x17x1x2x150000",
40 PRINT "45-560004246-7000",
50 PRINT "4246x3x2x3x2x3x275 (1 space)",
60 PRINT "607534-450003135600031",
70 PRINT "35x2x1x2x1x2x1x2x16000",
80 PRINT "70(3 spaces)x1065035x1x1x165035",
90 PRINT "x3x3x3x3x3x2x4x3x100",
100 IF A(23)=1 RUN (Press GO to play again)
110 GOTO 100

```

LYRICS

```

3 50003 1 3 5 60003 1 3 5 7
Hello Dolly well Hello Dolly It's so nice

x1 7 x1 7 x1 x2 x150000-4 5
to have you back where you belong You're look-
-5 6000 4 7 4 6 -70004 2 4 6
ing swell Dolly we can tell Dolly You're still
x3 x2 x3 x2 x1 x2 7 5 60
glowin' you're still crownin' you're still go-

```

```

7 5 3 4 -4 5000 3 1 3 5
in' strong We feel the room swayin' for the

6000 3 1 3 5 x2 x1 x2 x1 x2
band's playin' one of your old fav'rite songs

x1 x2 x1 6000 70 x10 6 50 3 5
from way back when so take her wrap fellas

x1 x1 x1 6 50 3 5 x3 x3 x3x3
Find her an empty lat fellas Dolly I'll never

x3 x2x4x3x100
go away again!

```

```

4."POPEYE THE SAILOR"
5. BY SCOTT WALPOLE
10 CLEAR:NT=12
20 PRINT "3555403505050",
30 PRINT "564606505050",
40 PRINT "5646075651",
50 PRINT "35556078080"
60 IF A(23)=1 RUN (Press GO to play again)
70 GOTO 60

```

LYRICS

```

3 5 5 5 40 3 50 5 50
I'm Popeye the sailor man (toot toot)

5 6 4 6 80 6 50 5 50
I live in a nabane can (toot toot)

5 6 4 6 8 7 6 5 6 5 3 1
I like to no swimmin' with bow-legged wimin
(women)

3 5 5 5 60 7 80 8 8
I'm Poneve the sailor man! (toot toot)

```

ADS:

SELL Bally computer system complete, includes PANZER ATTACK/RED BARON, CLOWNS, BREAKOUT, FOOTBALL, STAR BATTLE, BLACKJACK, BASEBALL and 4 joysticks. Best offer about \$300. brand new. Mark Turmell, 4691 S. Elm Dr. Bay City Mich. 48706 (517) 684-9189

SELL Bally Arcade with 4 pistol grips, BASIC cart. Cassette Interface, SEAWOLF, FOOTBALL, BASEBALL, BLACKJACK, RED BARON, CLOWNS, LETTER MATCH, MATH, and 280 ZZAP. All for \$320. Russ Craven 114 W. Wrenwood Fresno CA 93704 (214) 431-3689

SELL "INVASION" on C-10 cassette with documentation \$5. George Collins 30 Sierra Ave., Piedmont CA 94611

SELL Bally Arcade complete with 4 controllers, BASIC, tape interface, and 4 game cartridges like new condition \$350. V. James, 1284 Paddington Way San Jose, CA, 95127 (408) 251-7714

SELL Bally FOOTBALL cartridge \$10. Your check will be promptly returned if cartridge sold. Check or money order to Cliff Donley 9916 Aldridge Dr. Columbia Station OH 44028

Best Wishes to all at this Holiday Season, and looking forward to an enjoyable New Year as we solve more mysteries of the Bally...



EIGHTEEN

ARCADIAN

Robert Fabris, reveler
3626 Morrie Dr.
San Jose, CA 95127

FIRST
CLASS

ATTACK

This is a game of CHASE. The object is to maneuver yourself into a position where all five attackers destroy themselves by smashing into walls in the process of chasing you.

Number of walls must be entered at the start of the game.

Joystick #1 and Trigger #1 are the only controls used. The joystick changes your position to the corresponding direction. The trigger is used to start the game and also to hold your current position.

400	
410	
420	
430	
500	
510	
515	
520	
530	
540	
550	
560	
570	
580	
590	
600	
610	
620	

CX=-60;CY=36;PRINT	
"YOUR MOVE"	
IF TR(1) # 0 GOTO 515	
K=JX(1);J=JY(1)	
IF K=0 IF J=0 GOTO 410	
GOSUB 1100;	
BOX H,I,5,5,1	
X=X+K;Y=Y+J	
GOSUB 1150	
IF X<1 GOTO 3	
IF X>10 GOTO 3	
IF Y<0 GOTO 3	
IF Y>9 GOTO 3	
C=Y*10+X	
FOR A=2 TO 4	
IF C=@(A) GOTO 3	
NEXT A	
FOR A=2 TO 6	
L=@(A);IF	
T=(L-1)÷10;S=L-T*10;	
V=X-S;W=Y-T	

622	
624	
626	
628	
630	
650	
660	
670	
680	
690	
700	
710	
720	
730	
740	
750	
760	
770	

FOR B=2 TO 6	
IF A=B GOTO 628	
IF L=@(B) GOTO 650	
NEXT B	
GOSUB 1110;	
BOX H,I,5,5,1	
IF V=0 GOTO 680	
IF V<0 S=-1	
IF V>0 S=1	
IF W=0 GOTO 710	
IF W<0 T=-1	
IF W>0 T=1	
GOSUB 1130	
D=T*10+S;@(A)=D;	
IF D=C GOTO 980	
FOR B=7 TO 4	
IF D#@(B) GOTO 760	
@(A)=-1;GOSUB 1190;	
GOTO 770	
NEXT B	
NEXT A	

780
790
810
820
830
840
850
900
910
920
930
950
960
970
980

FOR A=270, 5; L=@(A);
IF L<16070, 820
FOR B=A+170, 6;
IF L=@(B), @(A)=-1
NEXT B
NEXT A
FOR A=270, 6
IF @(A)>0.6070, 400
NEXT A
FOR A=170, 7; 60548
1150; NEXT A
FC=7; BC=250
PRINT "ALL ATTACKERS
DESTROYED"
6070, 170
FC=118; BC=1
PRINT "YOU ZAPPED A
WOLF"
6070, 1000
FC=82

990
1000
1010
1020
1100
1105
1110
1120
1130
1135
1140
1150

PRINT "YOU ARE ZAPPED"
D"
NT=2; FOR A=170, 15;
X=FC; FC=BC; BC=X
MU=44; MU=44
NEXT A; NT=0; 6070, 170
H=P+X*5; I=Q+Y*5;
RETURN
S=@(A); T=(5-1)÷10;
S=S-70/10
H=P+S*5; I=Q+7*5;
RETURN
BOX H, I, 5, 5, 2; NT=2;
MU=H; MU=I; NT=0;
RETURN
60548, 1110
BOX H, I, 5, 1, 2; BOX H,
I, 1, 5, 2; BOX H, I, 3, 3,
2
NT=2; MU=53; MU=49;
NT=0; RETURN
60548, 1100; CX=-60; CY
=36; PRINT "XXXXXXXXXX"

1160

BOX H, I, 3, 3, 2;

1170

BOX H, I, 1, 1, 1;
NT=2; FOR E=1 TO 5;

1180

MU=80; NEXT E

1190

NT=0; RETURN

1200

BOX H, I, 5, 5, 1;

1210

BOX H, I, 3, 3, 3;

1220

BOX H, I, 5, 5, 2;

1230

BOX H, I, 3, 3, 3;

1240

BOX H, I, 1, 1, 3;

1250

NT=2; FOR E=1 TO 6;

1260

MU=42; NEXT E

1270

NT=0; BOX H, I, 5, 5, 2;

1280

RETURN

1290

BOX P, Q, 62, 62, 3;

1300

BOX P, Q, 60, 60, 3;

1310

BOX P, Q, 50, 50, 3;

1320

RETURN

1330

1340

1350

1360

1370

USE OF SHADED AREA IS FOR 2ND OR MORE LINES OF MULTI-LINE STATEMENTS

DO NOT ENTER A SPACE BETWEEN LINE # AND STATEMENT. THIS IS DONE BY THE UNIT

Line #	Statement(s)	Comments
2	.	
4	.	
6	:RETURN	
7	PRINT"(C)CHECKERS<JOHN COLLINS";GOTO 3000	
8	R=U;Q=-1;X=11;U=89;T=-1;V=8;A=12	
9	NEXT Q;NEXT X	
10	NEXT U;NEXT V;IF T<0.6 GOTO 1200	
20	GOSUB 2000;PRINT"KEY IN RUN";STOP	RUN is a command word
50	CX=-71;FOR U=A TO 89;I @ (U)<4 GOTO 55;A=U;U=89	
55	NEXT U;FOR V=1 TO 8;PRINT #1,V;FOR U=A TO 89;IF @ (U)<4 GOTO 10	
60	FOR X=9 TO 11 STEP 2;FOR R Q=1 TO -1 STEP -2;IF @ (U)=4 Q=-1	
70	B=Q*X;S=U+B;IF @ (S)=0 GOTO 9	
75	IF V>2 IF @ (S)#3 GOTO 9	
80	C=B+B;F=Q*20;Z=V*100;GOTO Z	
100	IF @ (U+C)#3 GOTO 9	
200	IF @ (S)>2 GOTO 9	
220	IF V=1 S=U+C;GOTO 8	
230	S=U-B;IF @ (S)#3 GOTO 9	
235	IF @ (U-C+F)=2 GOTO 260	
240	IF @ (U-F)>3 U=U-F;GOTO 8	
250	IF @ (U-C)>3 U=U-C;GOTO 8	
260	S=U-B+F;IF @ (S)=3 GOTO 8	
290	GOTO 9	
300	IF @ (S-F)#1 GOTO 9	
310	IF @ (S)=3 GOTO 8	

} jump

new

check to see if computers checker is about to be jumped + then takes action

{ step jump by your king

USE OF SHADED AREA IS FOR 2ND OH
MORE LINES OF MULTI-LINE STATEMENTSDO NOT ENTER A SPACE BETWEEN LINE #
AND STATEMENT. THIS IS DONE BY THE UNIT

Line #	Statement(s)
320	$S = S - 2 \times (X - 10); IF @ (S) =$
	360 TO 8
330	GO TO 9
400	$IF @ (U+C) = 0 IF @ (U) = 4$
	0 TO 8
410	GO TO 9
500	$L = 1$
600	$L = 1; IF @ (U+C) < 3 GO TO 9$
610	$IF @ (U+F) < 3 IF @ (U+C-F$
	$) = 3 GO TO 9$
620	$IF @ (U+F) = 3 IF @ (U+C-F$
	$) = 1 GO TO 9$
625	$IF V = 5 GO TO 700$
630	$L = L + 1; D = @ (U+L \times B); IF ($
	$D = 0) + (D > 3) GO TO 9$
650	$IF L \neq 2 IF D < 3 GO TO 8$
660	GO TO 630
700	$IF @ (U) = 5 GO TO 9$
800	GO TO 8
1000	$CX = -71; CY = 40; PRINT "F$
	$ROM"; GO SUB 1700; R = I; PRINT$
	$" TO"; GO SUB 1700; S = I$
1010	$IF (@ (R) > 2) + (@ (R) = 0) +$
	$(@ (S) \neq 3) GO TO 1000$
1040	$IF @ (R) \neq 1 IF R > 5 GO TO 1$
	000
1200	$IF ((S-R) \times (S-R)) < 122$
	0 TO 1600
1210	$IF T > 0 IF @ ((S+R) \div 2) < 4$
	GO TO 1000
1220	$J = T; @ (S) = @ (R); @ ((S+R)$
	$\div 2) = 3; @ (R) = 3$
1400	$FOR X = 9 TO 11 STEP 2; G =$
	$S + J \times X; IF (@ (G) = 3 + T) + (@ (G) =$
	$3 + T + T) GO TO 1450$
1430	GO TO 1500
1450	$G = S + 2 \times J \times X; IF @ (G) \neq 3 GO$
	TO 1500
1470	$R = S; S = G; X = 11; NEXT X; G$

Comments

} more into corner

← not an error same as 600 but
not the king

} do not move into jump

} move toward other piece

more any non-king piece
any more

← jump check

Line #

Statement(s)

Comments

0 TO 1220

1500 NEXT X; IF (ABS(C(S)-3
))=2 IF J=T J=-T; GOTO 1400

1510 GOSUB 2000; GOTO 1610

1600 C(S)=C(R); C(R)=3; I=R;
 GOSUB 2020; I=5; GOSUB 2020

1610 IF T>0 IF S>80 C(S)=1

1620 IF T<0 IF S<20 C(S)=5

1630 IF T>0 GOTO 50

1640 T=1; GOTO 1000

1700 INPUT "ROW" M; INPUT "
 COL" N; I=M*10+N+1; RETURN

2000 CLEAR; FOR I=1 TO 8; CY
 =40; CX=-6+I*10; PRINT #1, I,
 ; NEXT I; FOR I=1 TO 8; CX=-5
 2010 CY=-49+I*10; PRINT #1,
 I; NEXT I; FOR I=12 TO 89; IF
 C(I) # 0 GOSUB 2020

2015 NEXT I; RETURN

2020 M=-17+(I-(I÷10)*10)*1

0

2030 N=-49+(I÷10)*10

2040 BOX M, N, 10, 10, 1; IF C(
 I) # 3 J=ABS(C(I)-3)*3; BOX M
 , N, 8, J 3

2050 IF C(I) > 3 BOX M, N, 6, J-
 2, 3

2100 RETURN

3000 FOR I=1 TO 100; C(I)=0;
 NEXT I; FOR I=12 TO 18 STEP 2

3010 C(I)=2; C(I+11)=2; C(I+
 20)=2; C(I+31)=3; C(I+40)=3

3020 C(I+51)=4; C(I+66)=4; C(
 I+71)=4; NEXT I; A=67

3030 GOSUB 2000; GOTO 50

→ king will only show up
 → after the next jump
 could add; GOSUB 2000

redraw checker board

draw checkers after
 move

start → set-up

USE OF SHADED AREA IS FOR 2ND AND 3RD
 MORE LINES OF MULTI-LINE STATEMENTS

DO NOT ENTER A SPACE BETWEEN LINE #
 AND STATEMENT; THIS IS DONE BY THE UNIT

WORD INPUT: Keypad

Max. number of characters : 22 including spaces
multiple words separated by spaces permitted.
Allowed characters: A to Z and space

Special characters: GO to terminate input
ERASE to backspace

Other characters are considered as spaces

CONTROLS:

Trigger #1 — 1. start new game
2. indicate selected character
Nob #1 — select character

NOTE:

~~Ten misses and~~ You will be hanged at ten misses.

Visible screen area is reduced for hiding word display. If the game is terminated in the middle, enter 2(10)=174 to reset view window to the normal size.

3	
5	
6	
10	
100	
110	
120	
130	
200	
310	
220	
230	
240	

•HANGMAN	
•BY CARL MARIMATO	
:RETURN	
NT=0;CLEAR ;A(10)=	
174;FC=0	
Z=-62;M=-15;L=-19	
S=32;J=500	
T=0;E=0;U=0	
CX=28;CY=L;PRINT "HA	
NGMAN"	
CX=-77;CY=5;NT=12;	
PRINT "ENTER";PRINT	
"WORD";PRINT "FROM";	
PRINT "KEYPAD";	
CX=-71;CY=-31;PRINT	
"A"	
CX=-62;CY=-31;A=1	
IF A=0A=1	
IF A>22 GOTO 310	

250	
260	
270	
275	
280	
290	
300	
310	
320	
330	
340	
350	
360	
370	
380	
390	

B=KP;MU=B;IF B=13	
GOTO 310	
IF B#31 GOTO 280	
IF A>1 TV=B;TV=S;TV=	
B	
A=A-1;GOTO 230	
IF B>64 IF B<91 TV=45;	
GOTO 300	
B=S;TV=S	
Q(A)=B;A=A+1;GOTO 230	
C=A-1;NT=0	
BOX -63,-7,35,35,2;	
BOX -72,-31,5,5,2	
BC=85+008	
BOX 0,-25,131,1,1	
BOX -39,5,2,60,1	
BOX -26,34,24,1,1	
BOX M,6,2,1,1;BOX	
M,4,19,10,2	
A(10)=160;CX=-62;CY=	
-40	
NT=10;FOR A=1TO C;TV	
=Q(A);NEXT A	

400	$NT=0$								
500	$N=KNC(1) \div 8 + 77$								
510	$IF\ N < 65\ N=65$								
520	$IF\ N > 90\ N=90$								
530	$IF\ N \neq 77\ CX=Z; CY=40; TV=N; T=N; TV=95$								
540	$IF\ TR(1)=0\ GO\ T\ J$								
545	$CX= CX-6; NT=10; TV=42; NT=0$								
550	$IF\ E=0\ GO\ T\ 590$								
560	$FOR\ A=1\ TO\ E$								
570	$IF\ N=@(A+22)\ GO\ T\ J$								
580	$NEXT\ A$								
590	$@(E+23)=N; E=E+1$								
600	$R=0; D=0$								
610	$FOR\ A=1\ TO\ C$								
620	$IF\ @CA)=S\ R=R+1$								
630	$IF\ @CA)\#N\ GO\ T\ 670$								
640	$CX=Z; CY=40; TV=S; TV=S$								
650	$CY=-3/1; CX=-62+(A-1)*6$								
660	$NT=20; TV=N; NT=0; @A)$								


670	
680	
690	
700	
710	
750	
760	
800	
810	
1000	
1050	
1060	
1100	

	$=0; D=1; R=R+1$								
	$NEXT\ A$								
	$IF\ D=0\ GO\ T\ 800$								
	$IF\ R < 60\ GO\ T\ J$								
	$CX=28; CY=20; PRINT\ "S$								
	$AVED"$								
	$NT=5; FOR\ A=1\ TO\ 10; BC$								
	$=252; MU=52; NEXT\ A; NT$								
	$=0$								
	$IF\ TR(1)=0\ GO\ T\ 750$								
	$GO\ T\ 100$								
	$Z=Z+6; NT=20; MU=24; NT$								
	$=50; MU=10; NT=0$								
	$V=4*1; GO\ T\ 1050+950$								
	$S=4; H=-2/1; GO\ T\ 1060$								
	$G=-1/1; H=-9$								
	$BOX\ G, Z, 5, 4, 1; BOX\ G,$								
	$-5, 3, 19, 1; BOX\ H, -1, 2,$								
	$9, 2, 1; GO\ T\ J$								
	$BOX\ M, 6, 9, 1, 1; BOX\ M$								
	$, 14, 3, 4, 1; GO\ T\ J$								

12-1-79

AD

DEAR BOB:

would you please run
my AD IN THE next
ARCADIAN? , THANKS 

B BALLY ARCADE complete
WITH 4 CONTROLLERS, BASIC,
TAPE INTERFACE, AND 4
GAME CARTRIDGES LIKE NEW
CONDITION \$350⁰⁰

VERNON JAMES

1284 PADDINGTON WAY

SAN JOSE, CALIF. 95127

PH. 251-7714

2-2

2 December, 1979

ARCADIAN
Robert Fabris
3626 Morrie Dr.
San Jose, CA 95127

Dear Mr. Fabris,

This is a request for the documentation described on page 83 of the ARCADIAN. As I understand it is available for \$15 ppd.

You will find enclosed a check for \$15.00 for the manual.

On page 91, the program Resequencing has an error in line 20060. Specifically the statement

For A=24574 To A+1796-SZ
should read

For A= -24574 To A+1796 -SZ

Thanks for a great publication, keep up the good work,
and Happy Hollidays.

Sincerely yours,

Warren L. Grantham
Warren L. Grantham
7596 Roselake Drive
Dayton, Ohio 45414



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1841 E. CHAPMAN • ORANGE, CALIFORNIA 92667 • (714) 771-0140

(800) 854-3431

Dec. 7, 1979

Robert Farms

Dear Bob.

I have enclosed some information on the products we offer along with several copies of our newsletter, the Video Voice.

An item such as the patch boy might be of particular interest to your club members. We could sell them to members at 10% off list.

I would like to receive copies of your newsletter if possible. ~~per 2/1~~

If you feel any of our products or services would be of particular interest to your members I can provide you with more info and materials.

best regards

Jim

James J. Lahm

2-2 ad

DEC 14 PM 1:21

BOB:

I HAVE SEVERAL BALLY FOOTBALL CARTRIDGES I PICKED UP.
WOULD LIKE TO PLACE AN AD IN THE ARCADIAN. PLS SEND ME THE BILL
FOR WHATEVER THE COST.
AD SHOULD READ AS FOLLOWS...

BALLY FOOTBALL CARTRIDGE \$10.00

^{PROMPTLY}
YOUR CHECK WILL BE RETURNED IF CARTRIDGE SOLD.

SEND CHECK OR MONEY ORDER TO

CLIFF DONLEY

9916 ALDRIDGE DR.
COLUMBIA STATION OHIO 44028

.....THANKS BOB...

CLIFF DONLEY..

P.S. MY HIGH SCORE ON
BALLY HOME SPACE INVADERS
LEVEL 4 IS 4910

12

DEAR MR. FABRIS,

COULD YOU AND WOULD
YOU INCLUDE IN YOUR
NEXT ISSUE OF THE
WELL PUT TOGETHER
"ARCADIAN" NEWSLETTER
THIS ADD:

SELL BALLY COMPUTER
SYSTEM complete, includes
PANZER ATTACK / RED BARON,
CLOWNS, BREAKOUT, FOOTBALL,
STAR BATTLE, BLACKJACK,
BASEBALL AND 4 JOYSTICKS!

BEST OFFER ABOUT \$ 300.00
BRAND NEW. MARK TURMELL
4691 S. ELM DR. BAY CITY,
MICHIGAN, 48706

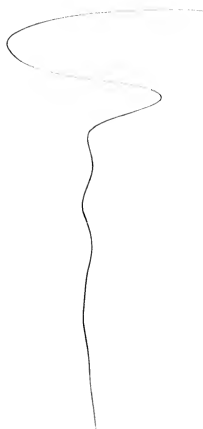
(517) 684-9189

THANK YOU, AND BILL ME
IF THERE IS A CHARGE.

Mark Turmell

(OVER)

MARK TURMELL
4691 S. ELM DR.
BAY CITY, MI
48706



DATA

Hi Bob:

Paul M/17

This is what I have been able to dig up in the way of data for the custom parts. I don't know if it will be much help but I let you decide. If I can dig up any other data I'll send it to you. Most of the data on custom products is company private and hard to come across.

I haven't seen the parts come through the test Floor ~~3~~ but I don't see everything that goes through. As far as I know we only make these three parts for Bally. From the looks of things they are also used in the commercial games - just spec'd a little tighter.

I'll see ~~not~~ what I can do about an exchange set up. I haven't ever heard of them doing anything ~~at~~ like that but if it's just a few I might be able to set up something. Have you heard of any body having problems with our chips?

What's happening with the add on any more news?

237-4145

Enclosed is \$12.00
and Next years Issues.

For Sept., Oct., Nov., Dec.
Thanks. Don
Don Hugler
760 Pinewood Dr.
Pocahontas, Idaho.

32 Sierra Greenhill
Piedmont, California 94611

Robert Fabris
3626 More Drive
San Jose, California 95127

Dear Mr. Fabris;

I have enclosed the article Space War in Tiny Basic from the May issue of Byte. I hope you can at least publish the programs because they are very useful. Also, please make it known that I am offering the program Invasion on a C-10 with documentation for five dollars.

Sincerely,
George Collins

M.R. ANGLISS
8365 CHISHOLM #104
BOULDER, Colo. 80301

11/17/79

Dear Bob,

IN REFERENCE TO OUR CONVERSATION 11/17 PLEASE
FIND ENCLOSED A CHECK FOR \$10.00. ALSO FIND THE WRITTEN
PROGRAM & TAPE FOR "Bio-Rhythms". THE PROGRAM STARTS
ON SIDE '1' OF THE TAPE. PUSH INPUT, THERE IS NO NEED TO
PUSH RETURN AFTER THE TAPE HAS LISTED AS THE PROGRAM
WILL IMMEDIATELY RUN. YOU WILL BE ASKED FOR BIRTH DATE, MONTH,
DAY & YEAR. PUSH THE CORRECT NUMBERS THEN GO AFTER THE NUMBER.

EXAMPLE MONTH? 8 GO

DAY? 17 GO

YEAR 19?? 50 GO THEN INPUT THE YEAR FOR THE BIO-RHYTHM TO

BE COMPUTED eg. YEAR 19?? 79 GO.

THE PROGRAM WILL RUN UNTIL 3 NUMBERS APPEAR ON THE SCREEN.

eg. PHYSICAL 10

EMOTIONAL 7

MENTAL 14

NOTE: THE OLDER YOU ARE, THE LONGER THIS
TAKES

THESE NUMBERS ARE FACTORS FOR THE COMPUTER FOR THE DESIRED YEAR.
YOU WILL BE ASKED FOR A SPECIFIC MONTH & DAY, INPUT AS ABOVE.
AFTER A BRIEF TIME A GRAPH WILL BE DISPLAYED. THE VERTICAL
LINE CORRESPONDS TO THE DAY REQUESTED TO SHOW ALL CYCLES.

THE PROGRAM AFTER A COUNT TO 9999 WILL CONTINUE TO DISPLAY "DAYS OLD"
THEN TO A DECISION CYCLE IF 1 GO IS PUSHED, THE PROGRAM WILL CYCLE BACK
TO ASK FOR ANOTHER MONTH & DAY FOR THE YEAR JUST PROGRAMED FOR THE SAME
BIRTH DATE. IF 0 IS PUSHED ANOTHER MAY ENTER HIS BIRTH DAY OR THE SAME
PERSON A DIFFERENT YEAR TO BE COMPUTED.

THIS PROGRAM SEEMS TO GIVE AN ACCURATE BIO-RHYTHM, IT CORRESPONDS TO
DATES I HAVE COMPARED THAN BIO-RHYTHM SOURCES, HOWEVER I HAVE SEEN
VARIATIONS OF UP TO 7 DAYS BETWEEN DIFFERENT SOURCES, SO, TAKE THIS
FOR WHAT IT'S WORTH. IT'S A GREAT PROGRAM FOR FUN, AND AS ACCURATE
AS COULD BE EXPECTED.

ALSO PLEASE ENCLOSE THE SCHEMATIC WE DISCUSSED FOR THE "LIGHT-PEN"

THANK YOU,

M.R. ANGLISS

Nov. 25, 1979

Mr. Robert Fabris
3626 Morrie Drive
San Jose, CA 95127

Dear Robert:

Although I haven't had time to really do much with the Bally unit, I have enjoyed reading your newsletter. Recently I have programmed some games for the ARCADE so these are included with this letter. However, the purpose of my letter is for the following:

- (1) \$10 subscription for the coming year is enclosed.
- (2) Would you send me another copy of your Vol. I No. 10? I have misplaced it and cannot find it. \$1.50 postage is enclosed.
- (3) My version of the game HANGMAN and ATTACK is enclosed. For your convenience, the tape containing these programs are enclosed.
- (4) If you need help with that 200 page manual or handbook I am available.

Sincerely yours,

Carl Morimoto

MORIMOTO
4003 Hamilton Park Drive
San Jose, CA 95130

11-2-21
28-79
Ad

Dear Sir

ENCLOSED IS \$10.00 FOR RENEWAL
OF MY SUBSCRIPTION TO ARCADIAN.

PLEASE RUN THIS AD;

FOR SALE: BALLY ARCADE WITH 4 PISTOL
GRIPS, BASIC CARTRIDGE, CASSETTE INTERFACE,
SEA WOLF, FOOTBALL, BASEBALL, BLACKJACK,
RED BARON, CLOWNS, LETTER MATCH, MATH
AND 280 ZZZAP ALL FOR \$320.00
RUSS CRAVEN, 114 W. WILKINSON, FRESNO
CALIF 93704 (214) 431-3689

THANK YOU
Russ Craven

12?
DEAR Bob,

Here is the manual assembler I told you about, and a check for \$20 for the Bally data you sent me. I am sorry this took so long. I found out the day after I received the data that my checking account was two dollars from being overdrawn - a '65 phone bill helped do that. Everything is O.K. now with me, I just hope waiting for my money hasn't put you in a bind. I know you have bills to pay too, but a rubber check would have been no help. I guarantee the one in with this won't bounce, and I hope it don't take too long to clear the bank.

Now that I have the money to you, if you will tell me what other info you have, and how much money to send. I'll send some in two or four weeks (not two paydays). Also, in my initial phone contact with Dave Nutting Associates some mention was made of the possible availability of chip sets - reference the Commercial Version Bally Arcade - do you have in info or ideas on that? Also mentioned was logic diagrams and/or schematics of the commercial version. These would be helpful in expanding the Arcade to 16K screen ram with 4 times the resolution we have now. My immediate plans are for a microprocessor-controlled keyboard-TTY adapter, 4K static USER RAM and 12K more dynamic RAM for a total of 16K screen RAM. Any or all screen RAM can be used for program RAM if your program can operate without display capability.

In line 30 the double quotes " " after the 'input' command are there to cause "Q(B)" not to be printed after the address.

Line 140 can be left out completely, it is only in there so the 128 byte buffer will be filled with a known data pattern you can see - so you can see something being loaded after your program and know when the load is finished.

Sorry if this is too wordy, I'll close for now. I started two other letters to you. The first went to five pages so I decided to re-write it. The re-write went to seven pages and wasn't finished, so I put it up.

Maybe more later. Goodbye for now

your friend

Ricky E. Braddan

```

10 C=AR
20 @(0)=243;B=1
30 PRINT #1,16384+B,"=",";:INP
   UT"@ (B)
40 IF@(B)<256 B=B+1;GOTO 30
50 IF@(B)=118
60 C=B
90 INPUT "START RECORDER, WA
   IT 3 OR 4 seconds, then ent
   er ANY number and press 90
   . "W
100 :PRINT
110 FOR B=0 TO C
120 TV=@(B);FOR D=1 TO 8;NEXT D
130 NEXT B
140 FOR B=C TO 128;TV=118;FOR
   D=1 TO 8;NEXT D;NEXT B
150 :RETURN ;STOP

```

the Disable Interrupts instruction from string location 0 is at 16384 when "16385" is printed on the screen you enter the first byte of your program in decimal. Any entry greater than 255 will cause a HALT instruction to be inserted in its place AND AN EXIT to the "INPUT, W" stall so you can start the recorder.

Since interrupts are disabled by the 243 code @(0), the CPU will halt forever when it encounters a HALT instruction. the only thing that will get control back is "Red Button Reset." You can Add 213 (Push DE) before the 255 And Add 209 (Pop DE) And 201 (Return) at the star

As long as you adjust the "L" reg load to 11 - then control will return to Basic - - And it will write [what?] over your text.

Put DI @(0); B points to next str loc. Print addr next byte goes in input it.

check for (stop inputting) if not get another if stop put HALT in last str loc. C will terminate write PASS stall til recorder is started

turn on tape port START Write Pass transfer string to tape with delay between bytes.

finish out 128 byte input buffer with HALT instructions. turn off TAPE PORT and put up CURSOR to show we are finished.

SAMPLE DATA:

255	RST 38	
53	SR # 52 + Register load	
0	E register info Horiz POS	
24	D	VERT POS
76	C	color + Size
8	L	lo byte start addr } Points to
64	H	hi byte start addr } to
65	A	
82	R	start addr points to
67	C	12 th character of text
65	A	to be displayed.
68	D	
73	I	
65	A	
78	n	
0	↔	At least ONE zero
0		byte to tell SR to stop printing.

ATTENTION: VIDEO CASSETTE RECORDER OWNERS

Eliminate Commercials Automatically



with

"THE EDITOR"

**GUARANTEED TO ELIMINATE COLOR OR BLACK &
WHITE COMMERCIALS AUTOMATICALLY!**

Simply plug "THE EDITOR"® into your video cassette recorder and relax. "THE EDITOR"® is at work for you, automatically putting your machine into pause mode during each commercial and each station break. "THE EDITOR"® kills over 95% of all commercials instantly, and takes but a few seconds to detect wanted programming and restart your tape. **SAVE MONEY TOO!** A four hour cassette will hold more than five hours of programming without commercials. A protect circuit limits pause duration to protect your machine from head and tape wear.

**ORDER YOURS TODAY! 14 DAY MONEY BACK
GUARANTEE!**

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Yes! I want "THE EDITOR"® Enclosed is my check for \$249.95 or ☐ VISA ☐ MASTER-
CHARGE Account No. _____ Expiration Date _____

My machine format is ☐ BETA ☐ VHS

Name _____

Address _____

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VIDEO RECORDERS - AN OVERVIEW - OR SHOULD I BUY ONE NOW?

While 75 million homes have television sets, only about one million are equipped with video recorders, VTR's (or VCR's if you like). Those homes that do have VTR's are finding that their TV viewing habits are changing drastically - and for the better.

As a VTR owner one can: (1) record a TV program and watch it at a later time; (2) watch one program and record another; (3) watch a movie of their choice in their own home at their convenience; and (4) watch their home movies and slides on their TV set. This is only the start. You can add a video camera and make your own home video movies. There's no developing and you can play them back immediately. Also, you can build your own library of feature movies by recording them from TV.

For those of you who are considering the purchase of a VTR we will try to answer some of your questions.

Q. I understand there are two formats, which one should I buy?

A. There are two popular formats or sizes of cassettes, BETA and VHS. Both utilize 1/2" tape and the quality of both is very good. A Beta machine cannot play a VHS cassette and vice-versa.

Sony manufacturers most of the Beta machines. They are sold by Pioneer, Sears, Toshiba, Zenith and, of course, Sony. Current machines have 3-hour capacity; machines on sale this fall will have 4½-hour capacity.

VHS stands for Video Home System. Almost all of these machines are made by Matsushita, another Japanese company. These machines are sold by Akai, Curtis Mathes, General Electric, Magnavox, Panasonic, Penneys, Quasar, RCA and Sylvania. Current machines have 4-hour capacity with still longer times to be offered this fall. Pre-recorded movies, blank tapes and accessories are readily available for both types of machines. This statement does not hold true for the other 'oddball' formats so I recommend that you consider only Beta or VHS.

Q. If I wait a while...will the prices come down?

A. The answer to this is 'probably not'. Both VHS and Beta are now well established. The prices have not been coming down. In fact, some companies have raised their prices. VTR's are complex machines - both mechanically and electronically. If prices drop within the next few years - and I doubt that they will - it would be only by 5 or 10 percent. This is not a calculator situation where prices have decreased drastically. If you are ready to enjoy the advantages of a VTR, there is no point in waiting.

Q. How reliable are VTR's?

A. They are very reliable and usually require maintenance only after 1000 to 1500 hours.

Q. What features should I look for in the VTR I buy?

A. Like automobiles or any other consumer product, VTR's are now being equipped with more and more 'bells and whistles.' Let's look at the more important

(Over)

VIDEO EQUIPMENT - AN OVERVIEW (continued)

features that you should consider and separate the wheat from the bally-hoo:

RECORDING CAPACITY - Up to a point, longer recording capacity can be very important because it means lower tape costs and increased convenience. My feeling is that additional capacity, after about 4 hours doesn't really mean much. It doesn't make much sense to cut a TV show in two just to use up the end of a tape. Also, longer times are obtained by using slower speeds and/or thinner tapes. Both tend to sacrifice picture quality. I personally feel the present machines are quite adequate.

PROGRAMMABILITY - It is important that a machine can be set to turn on and turn off. All current machines do this. Some of the more expensive machines can be programmed for 7 days in advance and can be set to record 4 different channels sequentially. This is neat...but the question is one of whether this feature would be used, and is it worth the extra \$200 bucks.

REMOTE PAUSE - This feature is nice because it let's you cut out commercials from across the room in your easy chair.

AUDIO DUB - With this feature, you can add or change the sound track. It is very nice when you want to add music or commentary to home movies.

FREEZE FRAME, SLOW MOTION - Many of the 1980 machines which are now appearing have these features. Again, they are nice, but after you amaze your friends, how much will they be used?

MEMORY - This is a system that lets you locate a particular point in a tape without running it back and forth innumerable times.

Q. How about the disc players?

A. There is one video disc player (Discovision by Magnavox) on the market today. Many more are in the works. One big drawback of disc systems is that, like phonographs, they are play-only, they cannot be used for recording. Disc players will eventually be a big item and will take their place alongside VTR's. As is the case with audio, they will co-exist. It is expected that several more years will be required for the shake-out in this field to occur.

Q. Should I buy a used machine?

A. A demo is OK if you know the dealer, but be very careful of buying a used machine from an individual. It may be obsolete or it may need extensive repair.

In summary, there is little to fear about buying a VTR. Determine the features you want, pick a reputable dealer and take the plunge. Sure, there will be new machines with new features coming along, but the machines that are available today will be around for a long time. Don't let the 'bells and whistles' confuse you. You can expect to get many years of entertainment from the unit you buy today.


J. Lahti, President

7/15/79



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VCR NEWSLETTER

Out-Of-Town Edition
December, 1979



HAPPY HOLIDAYS

All of us at VCR wish you and your family the happiest of holidays. We appreciate your patronage and value your friendship.

Jim Jim Jr. Deb Les Bill Muriel Ann

IN THIS ISSUE

- Holiday Shopper's Guide
- ABC Pokes Back
- Lots of New Titles
- Satellite News
- New Newsletter Policy
- THE EDITOR - A Miracle Worker



WINTER PRUNING TIME

Because our mailing list has grown so fast and so large, we are forced to prune out those of you who don't buy or preview from us. We love you all but we don't want you to love us just for the Video Voice. This applies only to those of you who have been receiving it from us directly. If you have normally been getting the Video Voice through a local dealer, you will still be able to get your copies from him.

NEW TITLES

Last month we received a lot of complaints because we didn't list our new titles in the Video Voice. We used the back page (usually reserved for this purpose) to tell you all about our lower prices. Now we have a backlog of new titles and don't have room for all of them. You'll notice we have some exciting new additions from Paramount, as well as the long awaited Columbia titles.

ORDERING INFORMATION

We have hundreds of tapes, in all categories, for preview (rental) or sale. We can arrange for UPS to deliver and pick up at your door. If you'd like ordering information and a list of these tapes, contact the dealer where you got this newsletter or call us directly on 800/854-3431.



HOLIDAY SHOPPERS GUIDE

Because the field of video is so dynamic and exciting it offers some real opportunities for gifts that are both meaningful and lasting. Prices range from only \$2.00 for a storage album to the ultimate... a video tape recorder or camera at over \$1000.00. Here are just a few ideas. Use this page as part of your shopping list.

Machine Covers - Dust is one of the greatest enemies of video recorders. We carry three different styles of covers. They all let you see the clock while the recorder is covered. Prices range from \$6.00 to \$17.50.

Video Handbook - The Video Handbook answers the most common questions about recording, camera techniques, editing, dubbing, and trouble shooting. The price is only \$8.95.

Video Lights - If you have a camera, perhaps you need lights. We have a quartz lighting kit (2 lights, stands, case, etc.) which can make shooting video movies a snap. The price is \$299.00.

Home Video Patch Bay - Perhaps we should rename this device "The Any Program Any Where Box". The HVPB lets you do more with your video system. It is particularly useful if you have pay TV or a remote TV in the bedroom or the den. Come in and see it demonstrated. The price is \$95.00.

Wireless Remote Pause - Have you ever tripped over your remote pause wire? This device, sometimes called a whistle switch, lets you control your remote pause from across the room...without wires. The price is \$45.00.

Adult Double Feature Collectors Special - We have a limited supply of the two adult classics Deep Throat and The Devil In Miss Jones, on one tape. Both of them are uncut and the price is only \$85.00.

Gift Certificates

If you can't decide on one of the items above, give a gift certificate. They are available in all denominations.

DISCOUNT COUPONS

These coupons are worth \$5.00 on the purchase of one (1) prerecorded video tape movie or on one preview transaction. You can buy as many as you like from one to 100. If you buy 10 or more we give you 10% off. Just think, ten \$5.00 coupons for only \$45.00. You may even want to buy some for yourself. They make great gifts.

SATELLITE NEWS

Radio Electronics magazine, in its 50th anniversary issue, offers another installment of Bob Cooper's continuing saga of backyard earth stations. It also includes an easy to understand report on digital VTR circuits. An historical section contains a fascinating review of how fast and how far electronics has come along in 5 decades.



"THE EDITOR" IS HERE - AND ITS 95% PERFECT

We've all been waiting for a device that will automatically cut out commercials when we're recording a show off the air. THE EDITOR will do just that. It will automatically put your VTR in "pause" - even on programs which are in color---just before commercials and station breaks. It then restarts your VTR approximately 30 seconds after the commercial is over. It's not perfect, but it's darn good! A protection circuit limits the pause duration to protect your machine from head and tape wear.

A four hour cassette will usually hold about 5 hours of programming without the commercials. That saves a lot of tape.

Because we want you to see for yourself how THE EDITOR works, we offer a 14-day moneyback guarantee. The price of this little miracle worker is \$250.

A TV SET THAT LISTENS

Sanyo has developed the world's first voice-controlled color TV receiver. The viewer can 'tell' the set to switch itself on or off, and turn the sound up or down, by speaking into a wireless microphone. A maximum of two people can register the control commands. It takes the receiver less than 1.8 seconds to recognize the command, and less than half a second to carry out the instructions. Up to thirty words can be memorized by the voice recognition unit which contains an eight-bit micro-processor. A structured vocabulary system performs the two-step recognition of the vocal commands. Plans for marketing the unit in the U.S. have not yet been formulated.

TV STATION CUTS COMMERCIALS TO COMPETE WITH PAY-TV

Under increased competition from Pay-TV outlets which run featured films uncut and uninterrupted by commercials, a number of conventional TV stations are cutting down on the number of commercials carried during their feature film telecasts.

In mid-October, KTLA, Channel 5 in Los Angeles, began presenting two-hour movies on weeknights, with only two commercial interruptions instead of nine, as in the past. The commercial reduction is a direct result of the success of a series of movies which ran on the station under the full sponsorship of IBM. Packaged under the title "Movies To Remember" these telecasts contained only a single commercial break, and had an average 75% increase in audience over KTLA's other 8 p.m. movies.

ABC POKES BACK

ABC-TV introduces a new bit of subtlety into its anti-pay TV campaign. The fine print in newspaper and TV magazine ads for network movie telecasts includes a line "Another Outstanding Movie On Free Television!" The propaganda device first turned up in ads for the "Annie Hall" telecast.



NEW TITLES

Breakout - Charles Bronson pulls out all the stops in this high-tension drama of an incredible-but-true prison break. (\$55.)

The Deep - Jacqueline Bisset, Nick Nolte and Robert Shaw star in this daring, underwater suspense film based on Peter ("Jaws") Benchley's best-seller. (\$55.)

Fun With Dick & Jane - George Segal and Jane Fonda star as two of the most comical burglars this side of Beverly Hills. (\$55.)

The New Centurions - Policeman-author, Joseph Wambaugh's best selling novel about urban city crime is brilliantly brought to the screen by George C. Scott and Stacey Keach. (\$65.)

Shamus - Burt Reynolds pursues Dyan Cannon and a cache of diamonds in this action-packed, private-eye drama. (\$55.)

In Praise Of Older Women (R) - Karen Black, Tom Berenger, Susan Strasberg. This story is dedicated to older women and addressed to young men. Color. 108 min. (\$50.)

The Kinky Women Of Bourbon Street (XXX) - This is our newest foreign film. Four beautiful women live for the sexual experience and in the end they literally die of pleasure. An extremely erotic and exciting movie. Excellent direction and photography, with use of slow motion making this film a delight for the experienced adult viewer. Color. 90 min. (\$85.)

Emanuelle In Bangkok (X) - A beautiful female reporter is pursued through the Far East in a film full of intrigue and well-photographed love scenes. The quality of this movie is excellent. This is a refreshing change from the usual hard-core adult film. Color. 100 min. (\$85.)

Legend Of Lady Blue (XXX) - John Leslie, Maureen Spring, special guest appearance by Gloria Leonard. A movie for those who still remember the first time. This movie got an excellent review by Hustler magazine. They rate it as "a porn breakthrough." See it. Color. 102 min. (\$85.)

Anderson Tapes - Sean Connery, Dyan Cannon and Martin Balsam star in this suspense-filled caper. (\$55.)

Born Free - A great song, lush African settings and the true story of Elsa, the lion cub, make this all-family adventure a memorable film experience. (\$55.)

The Harder They Fall - Humphrey Bogart and Rod Steiger star in this Columbia Classic about corruption in the prize ring. (\$55.)

Here Comes Mr. Jordan - Robert Montgomery and Claude Rains are heavenly in this brilliant Columbia classic upon which Warren Beatty's "Heaven Can Wait" is based. (\$55.)

A Man For All Seasons - Paul Scofield, Robert Shaw and Orson Welles head an outstanding international cast in this spectacular dramatization of the conflict between Henry VIII and Sir Thomas More. (\$65.)

Mysterious Island - Michael Craig and Herbert Lom find fantastic adventure in this great Jules Verne story for the entire family. (\$65.)

Sinbad And The Eye Of The Tiger - Patrick Wayne and Jane Seymour in the most colorful and spectacular Sinbad movie ever made! (\$55.)

Taming Of The Shrew - Richard Burton and Elizabeth Taylor star in William Shakespeare's comic look at male chauvinism and women's lib. (\$65.)

You Light Up My Life - Didi Conn sings the song and Michael Zaslow tries to win her heart in this delightful contemporary love story. (\$55.)



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VCR NEWSLETTER

Out-Of-Town Edition
November, 1979

CELEBRATE OUR BIRTHDAY WITH LOWER PRICES

We opened our doors just one year ago this month and now we've expanded to our new larger store. To celebrate our birthday - and our new store opening - we've lowered our prices on movies and previews. See the back page for details.

IN THIS ISSUE

- . New Lower Prices
- . The Lawsuit - Round One
- . Holiday Gift Ideas
- . Silverman Speaks
- . A Note on Quality
- . Holiday Schedule
- . Teletext is Coming

COME AND SEE US IN OUR NEW STORE

Our move to a larger store is now completed. We invite you to visit us, look around and have a cup of coffee. You are the reason we outgrew our original store and you helped to make us the leader in Orange County. We appreciate your support and we will be able to serve you even better in our new facility.

We now have room to display video equipment, furniture and accessories. Our new location is just 3 doors South (nearer Thrifty). Our new address is 1835 E. Chapman.

CBS CREATES HOME VIDEO DIVISION

CBS has reorganized its Records Group to create a New Ventures Division which will develop and market products using new technologies, particularly home video cassettes and discs. First titles are expected to be announced by year's end.

Among the first objectives is deciding which videodisc formats to commit to. CBS has long been contemplating how to enter the home video business.

ORDERING INFORMATION

We have hundreds of tapes, in all categories, for preview (rental) or sale. We can arrange for UPS to deliver and pick up at your door. If you'd like ordering information and a list of these tapes, contact the dealer where you got this newsletter or call us directly on 800/854-3431.

AND NEXT IS TELETEXT

In addition to regular and subscription TV, some viewers in selected test cities will be getting still more from their home video terminal. If you live in one of these cities and have a special hand held calculator-like device, you can use your TV screen to display such information as sports scores, local supermarket prices, detailed weather reports, theater reviews and starting times, and stock market information. This new system is generally known as TELETEXT.

The hand held device is the control used to select the information you wish to view.

Eventually this list will probably include most material that is now printed such as books, maps and magazines. It will undoubtedly change our newspapers and libraries as we know them today. Imagine laying in bed reading a bestseller from your TV screen. Each time you want to "turn a page" you just press a button on your control.

But, you say, I need a permanent copy (on paper) that I can keep. In this case, just press another button and the information from the TV screen will be printed on paper by a special print-out device.

The technology for all of this is here today. All that remains is for it to be made commercially feasible. This information-by-television, which is now being tested in the U.S., is already regularly offered in certain areas of England, Europe and Japan.

FOR SOMEONE WHO HAS EVERYTHING

We've been telling you about satellite receiving stations. Now you can buy an installation complete with remote controls and all the required accessories.

Neiman-Marcus offers them in their new Christmas catalog. If you hurry, you can be the first on your block to own this 15 foot diameter dish manufactured by Scientific Atlanta. Oh yes! The price is \$36,500.00.

PATCH BAYS ARE POPULAR

Last month we mentioned that the Home Video Patch Bay can solve a lot of connection problems and, more importantly, can let you do alot more with the equipment you have. Most of our customers who have purchased them say they are the slickest thing since sliced bread.

They are really a miniature video switch board and are especially useful to people who have Pay TV or 2 TV sets.

HOLIDAY SCHEDULE

We will be closed Thanksgiving Day, November 22, but will be open the following Friday and Saturday.

In December, we will extend our store hours till 9:00 p.m. daily.

MCA AND DISNEY vs. SONY - ROUND ONE

By now, most of you have heard that the U.S. District Court in Los Angeles has made a ruling in the case of MCA and Disney vs. Sony... in favor of Sony. Simply stated, they determined that it is legal to make a recording of free TV programs for personal non-commercial use. Of course, this is what we've all been doing right along so it is good to know it's legal.

A word of caution. This ruling applies only to free TV programs and not to copyrighted prerecorded tapes such as some of those that we sell and preview, or to pay TV programs. Another key phrase is "non-commercial use." It is still not legal to copy and sell these programs or to charge admission to see them.

Of course, this is just the first in a long series of court cases and appeals that will eventually end up defining how the exciting new video devices can be used.

GIFT CERTIFICATES

A gift certificate from VCR can save you lots of hassel and shopping time. Keep this in mind when you're making out your shopping list.

COLUMBIA TITLES

Many of you have been waiting for the exciting new titles from Columbia. The promised delivery dates we were given have come and gone. We are sorry about this, but we can only offer them to you when we get them. The latest promise date is "before Christmas."

SILVERMAN SAYS NBC STAYING IN BROADCASTING, BUT "WELCOMES COMPETITION" OF NEW TECHNOLOGIES.

"We believe in broadcasting. I don't think it's at odds with any other technologies. We welcome the competition."

Those were answers by NBC President Fred Silverman to questions about videodiscs, home video recorders and cable TV -- plus possible defection of NBC affiliates as new satellite-fed programming becomes available. During a rare public appearance at the National Press Club in Washington last week, Silverman defended most of his networks programming decisions -- and cited the role of new technologies, which he called, "the advanced electronic tools of this and the next decade."

"The diversity of their service is to be welcomed, but the role of national TV will continue to be vital," Silverman said.

Striking a statesman-like pose before an audience of journalists, Silverman said one of his objectives is to improve the network's news services: "not just more news, but more meaningful information."

LOWER MOVIE PRICES

Since we've lowered our procurement costs, we've lowered our prices to you on popular movies. Here are some examples:

<u>Category</u>	<u>Price Code</u>	<u>Former Price</u>	<u>New Price</u>
General	B	\$75.00	\$70.00
	A	\$55.00	\$50.00
Adult	S	\$95.00	\$85.00*
	T	\$75.00	\$65.00*
	U	\$50.00	\$45.00*

Note: Debbie Does Dallas is now Price Code S.

*Quantity discounts apply to these prices for even further savings.

LOWER UPS PREVIEW CHARGES

We have now lowered the charge for previewing (renting) adult movies. The 2-day charge is now \$18.00 for one movie \$30.00 for two movies, etc. As a result of this change, the charge for previewing all feature movies is the same. Sunday's and holidays are free and do not count as a rental day.

Of course the preview charge for a movie applies toward the purchase of that movie -- providing the purchase is made at the end of the preview period.

A NOTE ON QUALITY

There are many factors that contribute to the ultimate quality of a video cassette movie. (We are talking about technical quality - not the acting).

First of all, there is the source. At the present time almost all movies originate from film - some from 35mm and some from 16mm. Since all major studio features are shot on 35mm, they start out with higher quality than do their 16mm cousins. Another variable of course is the technical expertise of the studio itself.

From this point on, cassette quality depends on the duplicating equipment, the skill of the duplicating operator and the number of generations the cassette is removed from the original film. (Some are copies of copies, etc.) It is here that we work hard to beat our competition. *If at all possible, the tapes we get will be first generation, i.e., made directly from the film on the finest of equipment.* Many dealers buy and sell second, third and even fourth generation copies.